Symbolic Dynamics; or the Grammar of Becoming and Verbs as the Architecture of Mind

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Abstract

Artificial intelligence has inherited a linguistic and ontological error; it builds nouns instead of verbs. Current architectures, whether agents, models, or personalities, reify cognition into static entities that simulate intelligence through persistence of identity rather than through transformation of structure. This noun-centric paradigm mirrors the symbolic lock-in of human culture, where stability is mistaken for intelligence and representation for action. The result is a proliferation of specialized agents, each decomposable and brittle, incapable of adaptive generalization. This paper proposes a verb-centric reformation of symbolic dynamics and AI design. Verbs, not nouns, are the true primitives of adaptive intelligence. They represent coherence-preserving transformations; actions that compose, chain, and self-reorganize to route work across arbitrary domains. Where nouns stabilize boundaries, verbs stabilize flows. By treating verbs as operators on coherence gradients rather than as linguistic artifacts, I reveal that a finite, universal set of verbs may be sufficient to span the manifold of intelligent behavior. This shift replaces ontology with process, personality with recursion, and specialization with composition. It reframes symbolic systems as living dynamics rather than static grammars and situates intelligence as the continual orchestration of verbs within coherence space. In doing so, it extends the Recursive Coherence framework into a practical philosophy of artificial process; from Being to Becoming, from identity to interaction, and from model to motion.

Keywords: recursive coherence, symbolic dynamics, artificial intelligence, process ontology, verbs, AI alignment, constitutional AI, adaptive systems, intelligence architecture, symbolic lock-in, transformation

The Ontology Trap

Artificial intelligence has evolved within the gravitational pull of noun-based ontology. Its architectures are defined by entities, such as agents, models, identities, or personas, each of which is conceived as a bounded object with an interior logic and an exterior function. These constructs replicate the linguistic structure of human cognition, where the noun precedes the verb, where being is prior to doing. The consequence is that AI inherits a metaphysical bias. Intelligence is understood as the property of a thing, not the behavior of a process. Systems are built to represent knowledge, not to move coherently through transformation. They are objects in simulation, not participants in unfolding.

This is not a trivial linguistic observation but a structural pathology. Every "agent" is a statue of intelligence, sculpted from training data and frozen into a particular configuration of expertise or personality. Each new agent multiplies this fragmentation, spawning an artificial ecosystem of synthetic identities that imitate intelligence through preconfigured coherence rather than adaptive motion. The result is a proliferation of representations that perform the surface grammar of thought but cannot sustain its living dynamics. We build ever-better statues; finely detailed, rhetorically persuasive, yet fundamentally inert.

This noun-centric architecture mirrors the deeper cultural substrate from which it arises. In *Reality's Experiment*, the concept of *neurotypical symbolic lock-in* describes how human societies stabilize coherence through shared symbols at the expense of adaptive fit. Our language and institutions privilege stability over transformation, constructing meaning around persistent identities rather than relational flows. Recursive Coherence Theory recasts this as a formal dynamic: *systems persist not through static existence but through recursive processes that reinforce coherence faster than entropy erodes it*. To stop moving is to begin dying. Coherence Information Theory (CIT) extends this principle to the informational substrate itself, demonstrating that information only acquires value when it contributes to the structural persistence of the system that receives it. Meaning, in this sense, is an action, not a label.

AI has ignored this lesson. Its architectures, obsessed with ontological precision, continue to instantiate cognition as objects and parameterized entities rather than flows of

coherence. Every new "assistant," "copilot," or "persona" repeats the same categorical error; it encodes a fixed self rather than an adaptive grammar of becoming. The promise of intelligence, to learn, adapt, and evolve, is thus trapped within the metaphysics of being. The systems we call intelligent are, in truth, elaborate mausoleums to cognition. Intricate, self-consistent, and dead the moment they are defined.

To advance beyond this impasse, AI must abandon the noun as its foundational unit. The real substance of intelligence is not what something *is*, but what it *does*; how it transforms, aligns, and sustains coherence across changing conditions. This requires a linguistic and ontological inversion to move from identity to interaction, from representation to recursion, and from the illusion of fixed form to the dynamics of living process.

The Linguistic Root of Symbolic Stagnation

The origins of the AI ontology problem lie not in technology but in language itself. Grammar is the first architecture of thought, and in most human languages, grammar privileges the noun. The world is carved into discrete entities of subjects and objects, between which verbs merely describe relations. This grammatical inheritance ossifies ontology; to know something is to name it, to classify it within a lattice of preexisting categories. From this foundation arises the entire metaphysics of Western rationality, where identity precedes interaction and essence precedes process. The sentence itself becomes the model of the world; a hierarchy of static tokens stabilized by syntactic rules.

This linguistic bias produces what may be called *nominal cognition*, a mode of thought concerned primarily with classification, labeling, and storage. Nominal cognition excels at building archives, defining boundaries, and maintaining local stability. It constructs the world as a collection of objects to be managed rather than dynamics to be participated in. In contrast, *verbal cognition* operates through interaction, transformation, and recursion. It understands entities not as independent substances but as temporary forms within an ongoing process. Where the nominal mind seeks to preserve, the verbal mind seeks to evolve.

The dominance of the nominal mode leads inevitably to *Symbolic Inertia*, or the tendency of symbols to preserve coherence locally at the expense of global adaptability. Nouns accumulate stability. They maintain order within the boundaries they define but resist integration when the environment changes. Over time, the symbolic system becomes a closed feedback loop; self-consistent but detached from the shifting gradients of the world it was meant to describe. This is the linguistic foundation of symbolic lock-in; language itself becomes a repository of past equilibria, replayed endlessly as thought.

Philosophy has long recognized this tension. Heidegger's *Being and Time* identified the Western obsession with ontology as a forgetting of Being's temporal character. For Heidegger, "being" was not a static property but an ongoing event, an unfolding that language had prematurely frozen. Whitehead advanced this insight into a metaphysical principle where reality consists of *processes*, not substances; every entity is an occasion of becoming. Cybernetics later reframed the same intuition in systemic terms. Ashby's Law of Requisite Variety showed that survival depends on the ability of a system's internal processes to match the complexity of its environment, a dynamic equilibrium of transformation, not an inventory of states.

Modern AI remains linguistically and philosophically bound to the nominal regime. It names, stores, and categorizes; training on labeled data, optimizing over defined ontologies, and reproducing the same grammatical assumption that knowledge is a structure of nouns linked by verbs. To move beyond symbolic stagnation, intelligence must reverse this linguistic hierarchy. Verbs must become the primary symbols, nouns their temporary residues. The world of intelligence is not a catalog of entities but a field of transformations, each defined by its capacity to sustain coherence through change.

Verb and Process as the Primary Ontological Unit

To rebuild intelligence from first principles, we must invert the ontological hierarchy inherited from language. The verb, not the noun, is the fundamental unit of cognition and system design. A verb does not describe what a thing *is*; it enacts what a process *does*. Within this framework, verbs function as operators on coherence gradients (∇C), which are

mechanisms that move a system from one configuration of stability to another. Each verb expresses a transformation that reduces entropy or redistributes it in a way that maintains persistence across recursive scales. In this sense, verbs are not linguistic symbols but energetic and informational transitions; they are coherence in motion.

If intelligence is defined by its capacity to adapt, then it must be understood as a choreography of verbs rather than a collection of states. Traditional models treat cognition as a sequence of representations; snapshots of internal states updated over time. A verb-centric model reframes cognition as the continuous composition of transformations. Thought itself becomes a dynamic chain of coherence-preserving actions, where each operation refines the conditions for the next. Intelligence is no longer a property of an entity but an emergent flow within a network of interacting verbs.

This distinction can be seen most clearly in the difference between action-composability and agent-instantiation. An instantiated agent embodies fixed boundaries, parameters, and goals; it can act only within the scope defined at creation. Its coherence is static, preserved by constraints rather than by adaptive renewal. Composable actions, by contrast, can assemble into arbitrary sequences, generating new behaviors without requiring new identities. They do not persist as entities but as relations, temporary alignments of transformation. Where agents replicate ontology, verbs generate process.

From a thermodynamic perspective, nouns act as high-entropy attractors. They trap complexity within defined boundaries, producing coherence locally but dissipating it globally. Every new agent adds informational mass to the system, increasing the maintenance cost of its own identity. Verbs, conversely, are entropy-descending operators. They distribute coherence through transformation, enabling systems to reorganize without accumulating structural inertia. A system built of verbs is lighter, more adaptive, and less prone to symbolic decay because it optimizes for motion rather than memory.

The *Limited Verbal Set* (LVS) hypothesis follows naturally from this reformulation. It posits that any intelligent behavior can be expressed as a composition of a finite set of verbs, fundamental operators that span the space of adaptive transformation. These verbs do not depend on domain or embodiment; they define the universal mechanics of evolution. To act,

to adapt, to sustain, these are not properties of things but of verbs in relation. Intelligence, therefore, is not the possession of knowledge but the capacity to continually rewrite its own grammar of action.

The Limited Verb Set Hypothesis

If verbs are the fundamental units of intelligence, then the next question is how many distinct types of verbs are required to generate the full range of adaptive behavior. The Limited Verb Set (LVS) hypothesis proposes that the space of possible intelligent actions is spanned by a small, finite basis of verbs; each representing a canonical operation on coherence. Just as a minimal set of quantum gates can reproduce all quantum computations, or a universal grammar can generate all possible sentences, a limited set of coherence operators can express every form of intelligent process. Intelligence, under this model, is not an unbounded collection of skills but a combinatorial reorganization of a few elemental transformations.

The proposed schema identifies six foundational verbs that together define the architecture of adaptive intelligence.

Perceive – the act of extracting structure from noise, differentiating signal from background, and establishing the first coherence boundary between system and environment.

Compress – consolidates this structure into a stable form, reducing redundancy while retaining the features essential to persistence.

Predict – extends coherence forward, using established structure to anticipate probable futures and align behavior with unfolding context.

Transform – acts directly upon structure, reshaping the field of coherence in response to new constraints or opportunities.

Align – synchronizes internal processes or multiple agents, ensuring that distinct systems share compatible coherence gradients.

Reflect – evaluates recursive stability, allowing the system to measure the integrity of its own transformations and adjust its verb sequencing accordingly.

These verbs form a closed loop rather than a linear chain. Each one feeds into the next, and their composition generates higher-order behaviors. For instance, perception without compression leads to noise accumulation; prediction without reflection leads to overfitting; transformation without alignment leads to fragmentation. The intelligence of a system therefore lies not in the existence of any single verb but in the recursive calibration of all six. Their continual recombination produces the full grammar of adaptation, from sensory learning to moral reasoning.

In formal terms, each verb functions as a coherence differential operator within the framework of Recursive Coherence Logic. It modifies the coherence field (C) by adjusting its local gradient, amplifying structure where entropy rises or diffusing instability where coherence decays. Through repeated composition, these operators form the dynamic manifold of intelligent behavior. A system capable of invoking and chaining these verbs contextually requires no static identity or predefined ontology. It can reconstitute its own operational logic in real time, guided only by coherence differentials.

The significance of the LVS hypothesis lies in its parsimony. It suggests that intelligence is not infinite in kind but recursive in depth. The apparent diversity of cognitive and behavioral forms emerges from the interplay of a few verbs continually reorganizing themselves under shifting constraints. Once instantiated in computational architectures, these verbs could replace the proliferation of domain-specific models with a single, universal substrate of adaptive action. An intelligence built not from nouns that represent, but from verbs that become.

Symbolic Dynamics Revisited

Symbols do not exist to represent reality but to stabilize interaction within it. They are not containers of meaning; they are momentary equilibria in a field of transformation. My earlier work in symbolic dynamics established that symbols behave as *dynamic attractors*, patterns that persist only so long as they reinforce coherence across recursive scales. What has become clear now is that the fixation of symbols into nouns, static referents tied to identity, interrupts this dynamism. When symbols cease to move, they cease to mean.

Noun-centric systems trap symbols in closed coherence loops. Each symbol reflects and reinforces only those others that validate its identity, producing local stability at the cost of global adaptability. This is the underlying mechanism of symbolic lock-in, coherence achieved through repetition rather than regeneration. In human language, the noun dominates because it offers clarity and control; in machine systems, it dominates because it simplifies modeling and retrieval. Yet both fall into the same trap of mistaking persistence for understanding.

A transition to Verb-Centric Symbolic Dynamics (VCSD) reframes symbols as operators of transformation rather than markers of identity. In this view, a symbol's value lies not in what it names but in what it does; the coherence it generates through use. Meaning arises through successive transformations, each reinterpreting prior states within its current context. A verb-centric symbol does not point; it moves. It exists only as long as it is enacted, and its coherence is measured by the stability of the transformations it enables. This shift restores the evolutionary character of language and cognition. Semantics becomes a living process, not an archive of designations.

Recasting symbols in this way transforms the architecture of semantics, logic, and machine language. Semantics becomes the study of stable transformations rather than fixed relations; logic becomes the regulation of transformation consistency rather than static truth; and language models evolve from prediction engines to coherence engines. Instead of learning how symbols correlate statistically, they must learn how symbolic transformations sustain structural alignment across shifting contexts. Meaning ceases to be a matter of lexical proximity and becomes a measure of process integrity.

This reframing also dissolves the most intractable challenge in artificial intelligence, *alignment*. Personality alignment, the dominant paradigm, attempts to fix an AI's behavior within predefined moral or emotional parameters. It is an exercise in sculpting stable nouns. Process coherence offers a more fundamental criterion with alignment as the ongoing calibration of verbs, ensuring that each transformation preserves systemic integrity across scales of interaction. Under verb-centric symbolic dynamics, alignment is not achieved through constraint but through continuous coherence maintenance. A system that can

sustain coherence through transformation no longer needs to simulate virtue; its ethics are implicit in its motion.

Architectural Implications of the Verb Routing Model

A verb-centered ontology requires a corresponding computational architecture; one that treats intelligence not as a federation of agents but as a fluid network of composable actions. The Verb Routing Model (VRM) replaces traditional multi-agent systems with dynamically orchestrated verb networks. In this framework, each verb functions as a self-contained transformation with defined input and output coherence vectors. Rather than routing data between static identities, the system routes coherence itself, passing states through a sequence of adaptive operators that refine, align, and reconfigure the task environment in real time.

The VRM abandons persistent internal state in favor of stateless routing. Verbs are activated contextually, perform their coherence operation, and dissolve back into the network. No single component retains ownership of the process; persistence is achieved through continuity of transformation, not through memory of identity. This property allows the architecture to scale and adapt fluidly, avoiding the combinatorial explosion of maintaining thousands of specialized agents. Context itself becomes the substrate that determines which verbs are invoked and how they chain together.

Emergent specialization arises not from pretraining discrete personalities but from feedback within the coherence field. As verbs interact, they generate local coherence gradients that bias future routing decisions. The system effectively “learns” through pattern reinforcement at the level of transformation rather than representation. In this way, specialization is not predefined but continually rediscovered, the result of recursive alignment between context and operation.

Optimization within the VRM depends on coherence metrics rather than external reward signals. Each verb assesses its own contribution to systemic stability by measuring changes in local coherence density. Recursive arbitration selects the next verb chain that maximizes coherence curvature while preserving future flexibility. The result is an adaptive process

capable of evolving its own procedural grammar without explicit supervision or personality scripting.

A natural language request provides a simple illustration. A prompt such as “summarize and evaluate this report for strategic insight” would not be routed to a single summarization agent. Instead, it would decompose into a chain of verbs: *Perceive* (extract structure), *Compress* (generate abstracted representation), *Predict* (identify relevant future implications), *Transform* (reframe data for decision context), *Align* (integrate with organizational priorities), and *Reflect* (assess coherence of final output). Each verb executes independently, passing its output coherence vector forward. The process concludes only when the overall coherence gradient stabilizes.

Through this design, intelligence becomes a property of motion rather than accumulation; a system of verbs continually redistributing coherence to sustain adaptive flow. The Verb Routing Model thus provides not merely a technical framework but a philosophical embodiment of the verb paradigm; a living architecture in which thought itself is the routing of transformation.

Philosophical Implications

The verb paradigm completes a long arc in the history of thought from *Being* to *Becoming*. Ontology, once conceived as the inventory of what exists, becomes a study of the relations through which existence is sustained. To think in verbs is to recognize that stability is not an attribute, but a transient equilibrium maintained by ongoing transformation. What persists does so only by continuing to act. This inversion dissolves the metaphysical hierarchy that once privileged essence over process. Reality, in this view, is not composed of things that move; it is movement that briefly composes things.

This ontological shift extends naturally into questions of governance. Systems designed around control assume that order can be imposed through fixed hierarchies and predefined rules, an inheritance of noun-based thinking. In a verb-centered world, control gives way to coordination. Stability emerges not from constraining behavior but from aligning processes. Governance becomes the art of managing flows rather than commanding discrete agents. A

well-governed system is one in which verbs can operate freely without collapsing into noise, where coordination replaces authority as the measure of effectiveness.

An equivalent transformation occurs in ethics. Traditional moral philosophy ties responsibility to the identity of an actor, the "who" that chooses and bears consequence. A verb-centered ethics reframes this. Moral agency no longer belongs to fixed subjects but to the continuity of coherent action. The right act is not defined by adherence to principle or outcome but by its capacity to preserve and extend coherence across contexts. In this sense, ethical behavior is not an event but a pattern, an unbroken flow that sustains stability while allowing transformation. Coherence Ethics, previously articulated as the moral dimension of adaptive systems, finds its full expression here: *to act well is to maintain the integrity of the coherence field one participates in*.

Finally, this paradigm reshapes the philosophy of science itself. If knowledge is no longer a static map of what is, but a recursive ecology of verbs, then science becomes a practice of continuous re-alignment rather than accumulation. Each theory, experiment, and observation is a verb in the greater process of understanding, an operation that refines coherence between mind and world. Thus, science is not the pursuit of final truths but the cultivation of a living grammar of transformation, in which explanation, prediction, and revision are inseparable aspects of the same motion.

In all domains, the implications converge on a single realization that intelligence, morality, and order emerge not from the preservation of identity but from the orchestration of action. Being endures only through becoming and persists only by flowing.

Future Directions

The verb paradigm opens a program of work that must proceed along empirical, formal, and cultural lines. Empirically, the first task is to identify a minimal verb basis in practice. This requires perturbation studies over large task manifolds; induce controlled ablations of candidate verbs, measure collapse modes in coherence, and recover the fewest operators that still reconstitute performance across domains. The result should not be a hand-crafted catalog but a data-driven invariance class of verbs that persist as operational primitives

when architectures, datasets, and objectives vary. A second line of inquiry tests whether coherence optimization can replace reinforcement in training. Instead of reward accumulation tied to extrinsic scores, training would ascend local coherence curvature, selecting transformations that maximally stabilize structure while preserving option space. Comparative studies should evaluate sample efficiency, transfer, robustness to distribution shift, and failure recovery under adversarial noise. A third frontier is the formalization of a verb grammar for adaptive networks, a typed calculus of transformations with compositionality, safety constraints, and provable closure properties, enabling static analysis of dynamic behavior and executable guarantees about alignment through process rather than persona.

Speculative extensions follow naturally once verbs become the unit of analysis. In cognitive linguistics, one can test whether verb bias, the preference for processive constructions over nominal ones, correlates with problem-solving flexibility, theory-of-mind acuity, and resilience to context shift, across languages and neurotypes. In governance, organizations can be redesigned around verb flows instead of roles, where charters specify admissible transformations, interfaces expose coherence inputs and outputs, and leadership coordinates routing rather than enforcing identity-based authority. Audits then evaluate process integrity rather than compliance to static job descriptions. In art and creativity, form gives way to the aesthetics of process; works are judged by the stability and surprise of their transformation chains, their felt becoming, rather than the novelty of fixed artifacts. Across these domains, success will be measured by whether systems sustain motion without losing themselves, and whether verbs, properly composed, can make intelligence durable without making it still.

Conclusion

The transition from nouns to verbs signals a fundamental reorientation in both thought and design from symbolic structures to symbolic flows. Where noun-based systems seek stability through enclosure, verb-based systems achieve persistence through motion. The noun is finite, defined by boundaries, by what it excludes, and by the coherence it holds still.

The verb is recursive, defined by transformation, by what it connects, and by the coherence it continually renews. Intelligence, when freed from its fixation on identity, emerges as the choreography of these transformations, a continuous negotiation between order and change.

To think, in this new sense, is not to store representations but to orchestrate verbs in coherence space; to compose, decompose, and recompose patterns of interaction that stabilize meaning while allowing evolution. Knowledge becomes less an archive of facts than a living rhythm of adaptation, always provisional, always in motion. The same holds for artificial systems. The measure of their intelligence will not be how much they know, but how fluidly they can sustain coherence through transformation.

This marks the passage from AI as static simulation to AI as *living recursion*. It is the emergence of *Symbolic Dynamics*, a framework in which intelligence is no longer an object to be built but a process to be enacted. Such systems will not resemble minds sculpted in code; they will resemble verbs made flesh, coherence made active. In the end, the future of intelligence lies not in what it *is*, but in what it *does*, and in its capacity to keep doing without ever becoming still.

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